

EXHIBIT A

Attorney Docket No. 9632-012
Pending Claims

10. An isolated nucleic acid comprising SEQ ID NO:1, SEQ ID NO:6, SEQ ID NO:11, SEQ ID NO:12, SEQ ID NO:13, SEQ ID NO:14, or SEQ ID NO:15.
11. An isolated nucleic acid comprising a nucleotide sequence encoding a protein comprising SEQ ID NO:3, SEQ ID NO:4, SEQ ID NO:8, SEQ ID NO:9, or SEQ ID NO:10.
12. The isolated nucleic acid of claim 11 comprising a nucleotide sequence encoding a protein comprising (a) a heavy chain variable domain of monoclonal antibody S2C6 as secreted by the hybridoma deposited with the ATCC and assigned accession number PTA-110, and (b) a human constant region.
13. An isolated nucleic acid comprising a nucleotide sequence encoding a protein comprising an amino acid sequence that has at least 95% identity to SEQ ID NO:2 or SEQ ID NO:7.
14. An isolated nucleic acid comprising a nucleotide sequence encoding a protein, which protein competes for binding to CD40 with monoclonal antibody S2C6 as secreted by the hybridoma deposited with the ATCC and assigned accession number PTA-110, and which protein increases the binding of CD40 ligand to CD40 by at least 45%.
15. An isolated nucleic acid comprising a nucleotide sequence encoding a fusion protein, said fusion protein comprising an amino acid sequence of bryodin 1 (BD1) fused to SEQ ID NO:7 fused to SEQ ID NO:2.
16. An isolated nucleic acid which hybridizes to the reverse complement of a DNA consisting of a coding DNA sequence encoding a protein consisting of an amino acid sequence selected from the group consisting of SEQ ID NO:2 and SEQ ID NO:7, under highly stringent conditions, which isolated nucleic acid encodes a protein that immunospecifically binds CD40.

17. A recombinant cell containing a recombinant nucleic acid vector comprising a nucleotide sequence encoding a protein, which protein competes for binding to CD40 with monoclonal antibody S2C6 as secreted by the hybridoma deposited with the ATCC and assigned accession number PTA-110, and which protein increases the binding of CD40 ligand to CD40 by at least 45%.

18. A recombinant cell containing a recombinant nucleic acid vector comprising SEQ ID NO:1, SEQ ID NO:6, SEQ ID NO:11, SEQ ID NO:12, SEQ ID NO:13, SEQ ID NO:14, or SEQ ID NO:15.

19. A method of producing a protein comprising:

(a) growing a cell containing a recombinant nucleotide sequence encoding a protein, which protein competes for binding to CD40 with monoclonal antibody S2C6 as deposited with the ATCC and assigned accession number PTA-110, and which protein increases the binding of CD40 ligand to CD40 by at least 45%, such that the protein is expressed by the cell; and

(b) recovering the expressed protein.

20. A method of producing a protein comprising:

(a) growing a cell containing a recombinant nucleotide sequence encoding a protein comprising SEQ ID NO:2, SEQ ID NO:3, SEQ ID NO:4, SEQ ID NO:7, SEQ ID NO:8, SEQ ID NO:9, or SEQ ID NO:10, such that a protein encoded by said nucleotide sequence is expressed by the cell; and

(b) recovering the expressed protein.

BEST AVAILABLE COPY